Fresh Cow Summary

Featuring the Transition Cow Index®

Why use TCI

AgSource's Transition Cow Index (TCI®) provides a quantitative management measurement for the most critical period in a cow's life. Approximately 80% of her health events occur within four weeks after calving. Success during the rest of her lactation is dependent on management in the vital period prior to and after freshening.

The Transition Cow Index is the anchor of AgSource's Fresh Cow Summary. A herd's TCI answers four key management questions:

- Is transition cow management a bottleneck to higher profits? Thanks to AgSource's extensive benchmarks, it is easy to see how the herd's transition cow management stacks up against the rest of the industry.
- Over the past year, has transition cow management improved?
- Are there certain periods or times in the year when transition cow performance deteriorates or improves?
- Did a facility or management change yield higher transition cow performance?

The most difficult and important step in problem solving is recognizing that a problem exists. The Transition Cow Index provides an unbiased number that does just that.

Increasing TCI is associated with increased milk production for the entire lactation. Each additional pound of TCI is associated with 1.27 pounds of additional milk. At the herd level, increasing the TCI score by 1,000 pounds is associated with an average increase of 1,270 pounds of milk for all second and greater lactation cows.

In terms of survival, a cow with a TCI of zero has a 63 percent chance of calving again. This correlates with the industry average of 37% annual turnover rate. The likelihood of a cow with a TCI of 10,000 calving again is 86 percent, and a TCI of -10,000 is associated with a 32 percent likelihood of survival. Stated another way, an additional 1,000 pounds TCI increases the likelihood of surviving to start a new lactation by 2.7 percent.

The spread between better and poorer herd average TCI scores is about 4,000 pounds, meaning there is an opportunity of almost $600 per cow per year for some herds from milk production alone improving transition cow management. Lowering turnover will yield another $100 per cow savings on average for these herds that improve their TCI scores by 4,000 pounds. Potential income at this level will yield an impressive return on time and investment in improved transition cow facilities.

The Report Itself…

Block B

Each dot on the graph represents a cow's TCI. Dots on the far right represent cows that had their first test day of this lactation in the current month. Previous month's dots represent the TCI of cows that had their first test day in the prior month. Transition Cow Indexes are only calculated for cows tested 5 to 40 days after calving. Cows whose first test day is outside of this window do not get a TCI calculated for this lactation. If a cow is tested at 5 and again at 35 days in milk, only the 5 days in milk test day data is used.

AgSource produces different graphs based on herd size. For example, the blue numbers above the graph in Box A summarize the TCI of your fresh cows over time. If you have 250 or more cows on your production report, the blue numbers at the top of the graph are Monthly Averages. If a herd has less than 250 cows, the blue numbers represent a rolling 90-day average of your herd's TCI. By including TCI values over the previous 90 days for smaller herds, there usually will be enough cows in each calculation to give you a meaningful average. Transition Cow Indexes are only calculated on second and greater lactation cows.

The "Average TCI, Past Year" value is the measure of the effectiveness of a herd's transition program over the last twelve months. You can compare your herd to Industry Benchmarks of Annual Average TCI at the bottom of the block.

Block B and Health Problems with the Fresh Cow Summary

Data in Block B indicates if early lactation cows are at unusual risk of metabolic disease problems. Each dot in the graph represents the ratio of milk fat % divided by milk protein % (FPR) at the first test after freshening (5 to 40 days in milk). Red dots are first lactation cows. Blue dots are second lactation and greater cows. Annual percent First Test FPR greater than 1.4 are provided for both groups. There may be significant differences between these groups in the same herd. If over 40 percent of first test cows have a FPR greater than 1.4, the transition management program presents risks for ketosis, displaced abomasa and fatty liver disease. Obviously, these problems can adversely affect your herd's TCI.

The percentages on the top of the graph represent monthly averages. You can use these to track progress over the past year. You can also compare your herd to industry benchmarks at the bottom of the block. Although a cow may be 300 days in milk, the value plotted represents her First Test FPR that was collected about 10 months ago. This allows you to track fresh cow ketosis risk in the herd over the past year.

Block C

Besides metabolic problems, the other major challenge in fresh cow management is bacteriological infections, of which mastitis is a major component. Block C summarizes the mastitis status of cows that are 5-40 DIM and the status of replacement heifers entering the herd.

- "Heifers, infected at first test" measures the number of first lactation heifers having a SCC higher than 200,000 on their first test (5 to 40 days after calving).

• "Cows, new infections during dry period" had an SCC of less than 200,000 on the last test of their previous lactation and are ≥ 200,000 on their first test of this lactation.
• "Dry cow cures" are cows ≥ 200,000 on their last test of the previous lactation and under that level on their first test of this lactation.

Block D

Cows that leave in the first 60 DIM represent a significant financial loss. Monitoring and limiting these losses is an important function of fresh cow management. Also, herds with lower removal in the first 60 DIM tend to have lower overall turnover than herds with higher early lactation removals. The red sections of the bars in Block D represent first lactation cows and the blue sections represent second and greater lactation animals. The graph includes cows leaving the herd that died or were sold for reasons other than dairy. The numbers at the top of the graph are "Number of animals in the first 60 DIM leaving the herd in this 60 day period" of "Number of animals freshening in this 60 day period.